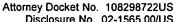
PTO/SB/21 (09-04)

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Application Number 10/665,908-Conf. #7052 Filing Date **TRANSMITTAL** September 18, 2003 First Named Inventor **FORM Demetrius Sarigiannis** Art Unit (to be used for all correspondence after initial filing) Examiner Name Rudy Zervigon Attorney Docket Number Total Number of Pages in This Submission 17\* 108298722US

	EN	CLOSURES (Check all	that appl	y)		
Fee Transi	mittal Form	Drawing(s)		After Allowance Communication to TC		
Fee	Attached	Licensing-related Papers		Appeal Communication to Board of Appeals and Interferences		
Amendme	nt/Reply	Petition		Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)		
After	Final	Petition to Convert to a Provisional Application		Proprietary Information		
Affid	avits/declaration(s)	Power of Attorney, Revocation Change of Correspondence		Status Letter		
Extension	of Time Request	Terminal Disclaimer		Other Enclosure(s) (please Identify below):		
Express Al	bandonment Request	Request for Refund		Form PTO/SB/08 Cited References (64 enclosed)		
x Information	n Disclosure Statement			Certificate of Mailing Return Receipt Postcard		
Certified C	opy of Priority (s)	Landscape Table on CD				
	lissing Parts/ Application	Remarks				
	y to Missing Parts under FR 1.52 or 1.53					
	SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT					
Firm Name PERKINS COIE LLP						
Signature ·	Signature Day July					
Printed name	David T. Dutcher					
Date	April 11, 2005		Reg. No.	51,638		

<sup>\*</sup> Number of pages does not include cited references





Disclosure No. 02-1565.00/US

(PATENT)

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Sarigiannis et al.

Application No.: 10/665,908

Filed: September 18, 2003 Art Unit: 1763

For: SYSTEMS AND METHODS FOR

> **DEPOSITING MATERIAL ONTO** MICROFEATURE WORKPIECES IN

REACTION CHAMBERS

Examiner: Rudy Zervigon

Confirmation No.: 7052

## **INFORMATION DISCLOSURE STATEMENT (IDS)**

MS Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed before the mailing date of a first Office Action on the merits as far as is known to the undersigned (37 CFR 1.97(b)(3)).

A copy of each Non-U.S. Patent and each Non-Patent Literature article listed on the PTO/SB/08 is attached. A copy of the U.S. Patents listed on the PTO/SB/08 has not been A full translation of the non-English language references marked by a check mark  $(\sqrt{})$  is enclosed. An abstract is enclosed for all other non-English language

Application No.: 10/665,908 Docket No.: 108298722US

references. Applicant has not verified that the translation or abstract is an accurate representation of the teachings of the non-English reference, though, and reserves the

right to demonstrate otherwise.

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Information Disclosure statement shall not be construed to be an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 50-0665, under Order No. 108298722US.

Dated: April 11, 2005

Respectfully submitted,

David T. Dutcher

Registration No.: 51,638

PERKINS COIE LLP

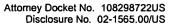
P.O. Box 1247

Seattle, Washington 98111-1247

(206) 359-8000

(206) 359-7198 (Fax)

Attorney for Applicant





Substitute for form 1449A/B/PTO		Complete if Known			
				Application Number	10/665,908-Conf. #7052
INF	ORMATIC	ON DISC	LOSURE	Filing Date	September 18, 2003
ST	STATEMENT BY APPLICANT			First Named Inventor	Demetrius Sarigiannis
				Art Unit	1763
	(Use as many she ets as necessary)		Examiner Name	Rudy Zervigon	
Sheet	1	of	13	Attomey Docket Number	108298722US

		T	U.S. PATENT I	JOCUMEN 13	
Examiner Initials*	Cite No. <sup>1</sup>	Document Number  Number-Kind Code <sup>2</sup> ( if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US-10/767,298	Filed 01-28-2004	Zheng et al.	
		US-11/027,825	Filed 12-29-2004	Derderian et al.	
		US-10/933,604	Filed 09-02-2004	Carpenter et al.	
		US-10/687,458	Filed 10-15-2003	Kubista et al.	
		US-10/683,424	Filed 10-10-2003	Mardian	
		US-10/839,316	Filed 05-05-2004	Saragiannis et al.	
		US-10/814,573	Filed 03-31-2004	Gealy et al.	
	- -	US-11/043,629	Filed 01-25-2005	Rueger et al.	
		US-11/018,142	Filed 12-20-2004	Rueger et al.	
		US-10/840,571	Filed 05-06-2004	Dando et al.	
		US-10/859,883	Filed 06-02-2004	Miller et al.	
		US-10/683,606	Filed 10-09-2003	Derderian	
		US-11/027,809	Filed 12-29-2004	Carpenter et al.	
		US-579,269	03-23-1897	Hent	
		US-3,618,919	11-09-1971	Beck	
		US-3,620,934	11-16-1971	Endle .	
		US-3,630,881	12-28-1971	Lester et al.	
		US-3,630,769	12-28-1971	Hart et al.	
		US-3,634,212	01-11-1972	Valayll et al.	
7.		US-4,018,949	04-19-1977	Donokowski et al.	
		US-4,242,182	12-30-1980	Popescu	

Subs	stitute for form 1449A/B/PTO		Complete if Known		Known
		Application Number 10/665,908—Conf. #7052		8-Conf. #7052	
IN	FORMATION D	ISCLOSURE	Filing Date September 18		
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	(Use as many sheets a	Art Unit	1763		
	(Ose as many sneets a	s necessary/	Examiner Name	Rudy Zer	
Sheet	2 of	13	Attorney Docket Number	10829872	2US
	US-4,269,625	05-26-1981	Molenaar		
	US-4,289,061	09-15-1981	Emmett	•	
	US-4,397,753	08-09-1983	Czaja		
	US-4,438,724	03-27-1984	Doehler et al.		
	US-4,469,801	09-04-1984	Hirai et al.		
	US-4,545,136	10-08-1985	Izu et al.		
	US-4,590,042	05-20-1986	Drage		
	US-4,681,777	07-21-1987	Engelken et al.		
	US-4,826,579	05-02-1989	Westfall		
	US-4,948,979	08-14-1990	Munakata et al.		
	US-4,949,669	08-21-1990	Ishii et al.		
	US-4,966,646	10-30-1990	Zdeblick	*	`
	US-4,977,106	12-11-1990	Smith		
	US-5,076,205	12-31-1991	Vowles et al.		
	US-5,091,207	02-25-1992	Tanaka		
	US-5,131,752	07-21-1992	Yu et al.		
	US-5,136,975	08-11-1992	Bartholomew et	al.	
	US-5,172,849	12-22-1992	Barten et al.		
	US-5,200,023	04-06-1993	Gifford et al.		
	US-5,223,113	06-29-1993	Kaneko et al.		
	US-5,232,749	08-03-1993	Gilton		
	US-5,248,527	09-28-1993	Uchida et al.		
	US-5,364,219	11-15-1994	Takahashi et al.		
	US-5,377,429	01-03-1995	Sandhu et al.		
	US-5,380,396	01-10-1995	Shikida et al.		
	US-5,409,129	04-25-1995	Tsukada et al.		
	US-5,418,180	05-23-1995	Brown		
	US-5,427,666	06-27-1995	Mueller et al.		
	US-5,433,835	07-18-1995	Demaray et al.		
	US-5,445,491	08-29-1995	Nakagawa et al.	,	
	US-5,480,818	01-02-1996	Matsumoto et al	• •	
L	US-5,498,292	03-12-1996	Ozaki		

Examiner	Date	
Signature	Considered	

Substitute for form 1449A/B/PTO		Complete if Known			
			Application Number	plication Number 10/665,908—Conf. #7052	
INF	ORMATION DISCL	OSURE	Filing Date	September 18, 2003	
STA	STATEMENT BY APPLICANT		First Named Inventor	Demetrius	Sarigiannis
		Art Unit	1763		
	(Use as many sheets as necess	:ary) 	Examiner Name	Rudy Zerv	rigon
Sheet	3 of	13	Attorney Docket Number	10829872	2US
	US-5,500,256	03-19-1996	Watabe		
	US-5,522,934	06-04-1996	Suzuki et al.		
	US-5,536,317	07-16-1996	Crain et al.		
	US-5,562,800	10-08-1996	Kawamura		
	US-5,589,002	12-31-1996	Su		
	US-5,592,581	01-07-1997	Okase		
	US-5,595,606	01-21-1997	Fujikawa et al.		
	US-5,599,513	02-04-1997	Masaki et al.		
	US-5,624,498	04-29-1997	Lee et al.		No.
	US-5,626,936	05-06-1997	Alderman		
	US-5,640,751	06-24-1997	Faria		
	US-5,643,394	07-01-1997	Maydan et al.		
	US-5,654,589	08-05-1997	Huang et al.		
	US-5,693,288	12-02-1997	Nakamura		
	US-5,729,896	03-24-1998	Dalal et al.		
	US-5,746,434	05-05-1998	Boyd et al.		
	US-5,766,364	06-16-1998	Ishida et al.		
	US-5,769,952	06-23-1998	Komino		
	US-5,788,778	08-04-1998	Shang et al.		
	US-5,792,700	08-11-1998	Turner et al.		
	US-5,792,269	08-11-1998	Deacon et al.		
	US-5,820,641	10-13-1998	Gu et al.		
	US-5,827,370	10-27-1998	Gu		
	US-5,833,888	11-10-1998	Arya et al.		
	US-5,846,330	12-08-1998	Quirk et al.		
	US-5,846,275	12-08-1998	Lane et al.		
	US-5,851,849	12-22-1998	Comizzoli et al.		
	US-5,865,417	02-02-1999	Harris et al.		
	US-5,879,459	03-09-1999	Gadgil et al.		
	US-5,895,530	04-20-1999	Shrotriya et al.		
	US-5,908,947	06-01-1999	Vaartstra		
	US-5,932,286	08-03-1999	Beinglass et al.		

Examiner	Date	
Signature	Considered	

PTO/SB/08a/b (08-03)

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Substitu	Substitute for form 1449A/B/PTO		Complete if Known		
-		Application Number	Application Number 10/665,908—Conf. #7052		
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ST	STATEMENT BY APPLICANT		First Named Inventor	Demetrius S	Sarigiannis
(Use as many sheets as necessary)		Art Unit	1763		
<u> </u>	Ose as many sneets as nee	ess ary)	Examiner Name	Rudy Zervig	
Sheet	4 of	13	Attorney Docket Number	108298722	US
	US-5,953,634	09-14-1999	Kajita et al.		
	US-5,956,613	09-21-1999	Zhao et al.		
	US-5,968,587	10-19-1999	Frankel		
	US-5,972,430	10-26-1999	DiMeo, Jr. et al.		
	US-5,994,181	11-30-1999	Hsieh et al.		
	US-5,997,588	12-07-1999	Goodwin et al.	,	·
	US-6,008,086	12-28-1999	Schuegraf et al.		
	US-6,032,923	03-07-2000	Biegelsen et al.		
	US-6,042,652	03-28-2000	Hyun et al.	-	
	US-6,045,620	04-04-2000	Tepman et al.		
	US-6,059,885	05-09-2000	Ohashi et al.		· <del>-</del> · ·
	US-6,062,256	05-16-2000	Miller et al.		
	US-6,070,551	06-06-2000	Li et al.		
	US-6,080,446	06-27-2000	Tobe et al.		
	US-6,079,426	06-27-2000	Subrahmanyam	et al.	
	US-6,086,677	07-11-2000	Umotoy et al.		
	US-6,089,543	07-18-2000	Freerks		
	US-6,109,206	08-29-2000	Maydan et al.		
	US-09/651,037	08-30-2000	Mardian		
	US-6,123,107	09-26-2000	Selser et al.	٠, ٠.	
	US-6,129,331	10-10-2000	Henning et al.		
	US-6,139,700	10-31-2000	Kang et al.		
	US-6,143,659	11-07-2000	Leem		
	US-6,143,077	11-07-2000	lkeda et al.		
	US-6,143,078	11-07-2000	Ishikawa et al.		
	US-6,144,060	11-07-2000	Park et al.		
	US-6,149,123	11-21-2000	Harris et al.		
	US-6,160,243	12-12-2000	Cozad		
	US-6,161,500	12-19-2000	Kopacz et al.		
	US-6,174,366	01-16-2001	Ihantola		
	US-6,174,377	01-16-2001	Doering et al.		
	US-6,174,809	01-16-2001	Kang et al.		

Examiner Signature Date Considered

Substitute for form 1449A/B/PTO		Complete if Known		
		Application Number	10/665,908-Conf. #7052	
INFORMATION DISC	OSURE	Filing Date	September 18, 2003	
STATEMENT BY APP	LICANT	First Named Inventor	Demetrius Sarigiannis	
Alexandra manu abanda an managan d		Art Unit	1763	
(Use as many she ets as nece	ssary)	Examiner Name	Rudy Zervigon	
Sheet 5 of	13	Attorney Docket Number	108298722US	
US-6,173,673	01-16-2001	Golovato et al.		
US-6,178,660	01-30-2001	Emmi et al.		
US-6,182,603	02-02-2001	Shang et al.		
US-6,192,827	02-27-2001	Welch et al.		
US-6,194,628	02-27-2001	Pang et al.		
US-6,193,802	02-27-2001	Pang et al.	-	
US-6,197,119	03-06-2001	Dozoretz et al.		
US-6,200,415	03-13-2001	Maraschin		
US-6,203,613	03-20-2001	Gates et al.		
US-6,206,972	03-27-2001	Dunham		
US-6,211,078	04-03-2001	Matthews	·	
US-6,211,033	04-03-2001	Sandhu et al.		
US-6,210,754	04-03-2001	Lu et al.		
US-6,214,714	04-10-2001	Wang et al.		
US-6,237,394	05-29-2001	Harris et al.		
US-6,237,529	05-29-2001	Spahn		
US-6,245,192	06-12-2001	Dhindsa et al.	i., .	
US-6,255,222	07-03-2001	Xia et al.		
US-6,263,829	07-24-2001	Schneider et al.		
US-2001/0010309-A	08-02-2001	Van Bilsen		
US-6,270,572	08-07-2001	Kim et al.	·	
US-2001/0011526-A	08-09-2001	Doering et al.		
US-6,280,584	08-28-2001	Kumar et al.		
US-6,287,980	09-11-2001	Hanazaki et al.		
US-6,287,965	09-11-2001	Kang et al.		
US-6,291,337	09-18-2001	Sidhwa		
US-6,290,491	09-18-2001	Shahvandi et al.		
US-2001/0024387-A	09-27-2001	Raaijmakers et a	al.	
US-6,297,539	10-02-2001	Ma et al.		
US-6,302,964	10-16-2001	Umotoy et al.		
US-6,302,965	10-16-2001	Umotoy et al		
US-6,303,953	10-16-2001	Doan et al.	·	

Examiner	Date
Signature	Considered

PTO/SB/08a/b (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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Substitute for form 1449A/B/PTO		Complete if Known			
·			Application Number 10/665,908—Conf. #7052		8–Conf. #7052
INF	ORMATION DISCLO	DSURE	Filing Date	Filing Date September 18, 2003	
STATEMENT BY APPLICANT		First Named Inventor		s Sarigiannis	
		ame)	Art Unit	1763	
ļ	(Use as many she ets as necessa		Examiner Name	Rudy Zer	
Sheet	6 of	13	Attorney Docket Number	10829872	2US
	US-2001/0029892-A1	10-18-2001	Cook et al.		
	US-6,305,314	10-23-2001	Sneh et al.		
	US-6,309,161	10-30-2001	Hofmeister		
	US-6,315,859	11-13-2001	Donohoe		
	US-2001/0045187-A1	11-29-2001	Uhlenbrock		
	US-6,329,297	12-11-2001	Balish et al.		
	US-2001/0054484-A1	12-27-2001	Komino		
	US-2002/0007790-A1	01-24-2002	Park		
	US-6,342,277	01-29-2002	Sherman		
	US-6,346,477	02-12-2002	Kaloyeros et al.		
	US-6,347,602	02-19-2002	Goto et al.		
	US-6,347,918	02-19-2002	Blahnik		
	US-2002/0020353-A1	02-21-2002	Redemann et al		
	US-6,355,561	03-12-2002	Sandhu et al.		
	US-6,358,323	03-19-2002	Schmitt et al.	•	
	US-2002/0043216-A1	04-18-2002	Hwang et al.		
	US-6,374,831	04-23-2002	Chandran et al.		
	US-2002/0052097-A1	05-02-2002	Park	:	
	US-6,387,185	05-14-2002	Doering et al.		
	US-6,387,207	05-14-2002	Janakiraman et	al.	
	US-2002/0076508-A1	06-20-2002	Chiang et al.		
	US-2002/0076490-A1	06-20-2002	Chiang et al.		
	US-2002/0073924-A1	06-20-2002	Chiang et al.		
	US-2002/0076507-A1	06-20-2002	Chiang et al.		
	US-6,420,230	07-16-2002	Derderian et al.		
	US-6,419,462	07-16-2002	Horie et al.		
	US-6,420,742	07-16-2002	Ahn et al.		
	US-2002/0094689-A1	07-18-2002	Park		
	US-2002/0100418-A1	08-01-2002	Sandhu et al.		
	US-6,428,859	08-06-2002	Chiang et al.		
	US-2002/0104481-A1	08-08-2002	Chiang et al.		
	US-6,432,831	08-13-2002	Dhindsa et al.		

Date

Considered

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Substi	Substitute for form 1449A/B/PTO		Complete If Known		
<b>.</b>			Application Number	10/665,908-Conf. #7052	
INI	FORMATION DISCL	OSURE	Filing Date	September 18, 2003	
ST	ATEMENT BY APP	LICANT	First Named Inventor	Demetrius Sarigiannis	
(1)		and)	Art Unit	1763	
ļ	(Use as many sheets as necess	ary)	Examiner Name	Rudy Zervigon	
Sheet	7 of	13	Attorney Docket Number	108298722US	
	US-6,432,259	08-13-2002	Noorbaksh et al.		
	US-6,432,256	08-13-2002	Raoux		
	US-2002/0110991-A1	08-15-2002	Li		
	US-2002/0108714-A1	08-15-2002	Doering et al.		
	US-6,435,865	08-20-2002	Tseng et al.		
	US-6,444,039	09-03-2002	Nguyen		
	US-2002/0127745-A1	09-12-2002	Lu et al.		
	US-6,450,117	09-17-2002	Murugesh et al.		
	US-6,451,119	09-17-2002	Sneh et al.		
	US-2002/0129768-A1	09-19-2002	Carpernter et al.		
	US-6,458,416	10-01-2002	Derderian et al.		
	US-6,461,931	10-08-2002	Eldridge		
	US-6,461,436	10-08-2002	Campbell et al.		
	US-2002/0144655-A1	10-10-2002	Chiang et al.		
	US-2002/0146512-A1	10-10-2002	Rossman		
	US-2002/0164420-A1	11-07-2002	Derderian et al.		
	US-2002/0162506-A1	11-07-2002	Sneh et al.		
	US-2002/0185067-A1	12-12-2002	Upham		
	US-2002/0195201-A1	12-26-2002	Beer		
	US-2002/0197402-A1	12-26-2002	Chiang et al.		
	US-2002/0195056-A1	12-26-2002	Sandhu et al.		
	US-2003/0003730-A1	01-02-2003	Li		
	US-2003/0000473-A1	01-02-2003	Chae et al.		
	US-2003/0003697-A1	01-02-2003	Agarwal et al.		
	US-6,503,330	01-07-2003	Sneh et al.		
	US-6,506,254	01-14-2003	Bosch et al.		
	US-2003/0013320-A1	01-16-2003	Kim et al.		
	US-6,509,280	01-21-2003	Choi		
	US-2003/0023338-A1	01-30-2003	Chin et al.		
	US-2003/0024477-A1	02-06-2003	Okuda et al.		
	US-2003/0027428-A1	02-06-2003	Ng et al.		
	US-2003/0027431-A1	02-06-2003	Sneh et al.		

Date

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Substitu	ute for form 1449A/B/PTO		Complete if Known		
			Application Number 10/665,908		3-Conf. #7052
INF	ORMATION DISCLO	DSURE	Filing Date	September	r 18, 2003
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ļ	(Use as many she ets as necessa	иу)	Examiner Name	Rudy Zervi	
Sheet	8 of	13	Attomey Docket Number	108298722	2US
	US-10/365,085	02-11-2003	Carpenter et al.		
	US-2003/0037729-A1	02-27-2003	DeDontney et al		-
	US-6,534,395	03-18-2003	Werkhoven et al		
	US-6,534,007	03-18-2003	Blonigan et al.		
	US-2003/0060030-A1	03-27-2003	Lee et al.		
	US-6,540,838	04-01-2003	Sneh et al.		
	US-6,541,353	04-01-2003	Sandhu et al.		
	US-2003/0066483-A1	04-10-2003	Lee et al.		
	US-2003/0070618-A1	04-17-2003	Campbell et al.		
	US-2003/0070617-A1	04-17-2003	Kim et al.		
	US-2003/0070609-A1	04-17-2003	Campbell et al.		
	US-6,551,929	04-22-2003	Kori et al.	.:	
	US-2003/0075273-A1	04-24-2003	Kilpela et al.		
	US-2003/0079686-A1	05-01-2003	Chen et al.		
	US-6,562,140	05-13-2003	Bondestam et al		
	US-6,562,141	05-13-2003	Clarke		
	US-2003/0098372-A1	05-29-2003	Kim		
	US-2003/0098419-A1	05-29-2003	Ji et al.		
	US-6,573,184	06-03-2003	Park		
	US-2003/0106490-A1	06-12-2003	Jallepally et al.		
	US-6,579,372	06-17-2003	Park		
	US-6,579,374	06-17-2003	Bondestam et a		
	US-2003/0121608-A1	07-03-2003	Chen et al.		
	US-6,596,085	07-22-2003	Schmitt et al.		
	US-6,602,346	08-05-2003	Gochberg		
	US-2003/0159780-A1	08-28-2003	Carpenter et al.		
	US-6,630,201	10-07-2003	Chiang et al.		
	US-2003/0194862-A1	10-16-2003	Mardian et al.		
	US-2003/0192645-A1	10-16-2003	Liu		
	US-6,635,965	10-21-2003	Lee et al.		
	US-6,638,879	10-28-2003	Hsieh et al.		
	US-6,638,672	10-28-2003	Deguchi		

Date

Considered

Examiner

Signature

Substitut	te for form 1449A/B/PTO		Complete if Known			
			Application Number 10/665,908–0		8-Conf. #7052	
INF	ORMATION DISCL	OSURE	Filing Date	Septembe	er 18, 2003	
STA	ATEMENT BY APPI	LICANT	First Named Inventor	Demetrius	s Sarigiannis	
	(llas as many shoots as massas	and	Art Unit	1763		
	(Use as many she ets as necess	ary)	Examiner Name	Rudy Zer	vigon	
Sheet	9 of	13	Attorney Docket Number	10829872	2US	
	US-2003/0203109-A1	10-30-2003	Dando et al.			
	US-2003/0200926-A1	10-30-2003	Dando et al.			
	US-6,641,673	11-04-2003	Yang	· · · · · · · · · · · · · · · · · · ·		
	10/733,523	12-10-2003	Beaman et al.			
	US-6,673,196	01-06-2004	Oyabu			
	US-2004/0003777-A1	01-08-2004	Carpenter et al.	٠		
	US-2004/0007188-A1	01-15-2004	Burkhart et al.			
	US-2004/0035358-A1	02-26-2004	Basceri et al.	· · · · · · · · · · · · · · · · · · ·		
	US-2004/0040502-A1	03-04-2004	Basceri et al.		,	
	US-2004/0040503-A1	03-04-2004	Basceri et al.			
	US-6,704,913	03-09-2004	Rossman			
	US-6,706,334	03-16-2004	Kobayashi et al.			
	US-6,705,345	03-16-2004	Bifano			
	US-2004/0083959-A1	05-06-2004	Carpernter et al.			
	US-2004/0083961-A1	05-06-2004	Basceri			
	US-2004/0083960-A1	05-06-2004	Dando			
	US-2004/0099377-A1	05-27-2004	Newton et al.			
	US-2004/0124131-A1	07-01-2004	Aitchison et al.			
	US-2004/0154538-A1	08-12-2004	Carpenter et al.			
	US-6,818,249-B2	11-16-2004	Derderian			
	US-2004/0226507-A1	11-18-2004	Carpenter et al.		• .	
	US-6,821,347-B2	11-23-2004	Carpenter et al.			
	US-6,838,114-B2	01-04-2005	Capenter et al.			
	US-2005/0016984-A1	01-27-2005	Dando			
	US-2005/0022739-A1	02-03-2005	Carpenter et al.			
	US-2005/0028734-A1	02-10-2005	Carpenter et al.	·		
	US-2005/0039680-A1	02-24-2005	Beaman et al.			
	US-2005/0039686-A1	02-24-2005	Zheng et al.			
	US-6,861,094-B2	03-01-2005	Derderian et al.			
	US-2005/0045100-A1	03-03-2005	Derderian			
	US-2005/0045102-A1	03-03-2005	Zheng et al.			
	US-2005/0059261-A1	03-17-2005	Basceri et al.			

Examiner	Date	·
Signature	Considered	

Substitute for form 1449A/B/PTO		Complete if Known			
				Application Number	10/665,908-Conf. #7052
l IN	<b>IFORMATION</b>	I DI	SCLOSURE	Filing Date	September 18, 2003
l s	TATEMENT I	BY A	APPLICANT	First Named Inventor	Demetrius Sarigiannis
				Art Unit	1763
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Sheet	10	of	13	Attorney Docket Number	108298722US

			FOREIGN PATE	NT DOCUMENTS		
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T⁵
		JP-4-213818-A	08-04-1992	Sony Corp		
		JP-2001-82682-A	03-30-2001	Matsushita Refrig Co Ltd.		1
		JP-1-273991-A	11-01-1989	Ishikawajima Harima Heavy Ind. Co. Ltd.	,	
		JP-63-256460-A	10-24-1988	Oki Electric Ind. Co. Ltd.		
		WO-00/79019-A1	12-28-2000	Gadgil		
		WO-03/016587-A1	02-27-2003	ASM Microchemistry OY, et al.		
		WO-00/65649-A1	11-02-2000	Tokyo Electron Limited		
		WO-03/008662-A2	01-30-2003	Applied Materials, Inc.		
		WO-03/028069-A2	04-03-2003	Applied Materials, Inc.		
		WO-02/095807-A2	11-28-2002	Integrated Materials, Inc.		
:		WO-02/073660-A2	09-19-2002	ASML US, Inc.		
		WO-00/63952-A1	10-26-2000	Integrated Materials, Inc.		
		WO-03/033762-A1	04-24-2003	Micron Technology, Inc.		
		WO-02/45871-A1	06-13-2002	Angstron Systems Inc.		
		DE-198 51 824-A1	05-11-2000	Siemens AG		
		WO-03/052807-A1	06-26-2003	Tokyo Electron Limited		
		JP-9-82650-A	03-28-1997	Kokusai Electric Co. Ltd.		П
		JP-10-223719-A	08-21-1998	Dainippon Screen Mfg. Co. Ltd.		
		JP-4-100533-A	04-02-1992	Mitsubishi Electric Corp.		$\prod$
		SU-598630	03-25-1978	Veremeichuk		
		JP-2002-164336-A	06-07-2002	Sony Corporation		1
		WO-02/073329-A2	09-19-2002	Applied Materials, Inc.		П
		WO-03/035927-A2	05-01-2003	Applied Materials, Inc.		
		WO-01/46490-A1	06-28-2001	Lam Research Corporation		$\Box$
		WO-98/37258-A1	08-27-1998	Moore Epitaxial Inc.		
		WO-02/081771-A2	10-17-2002	Angstron Systems, Inc.		
		WO-99/06610-A1	02-11-1999	Applied Komatsu Technology, Inc.	·	
Examiner Signature				Date Considered		

PTO/SB/08a/b (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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Sub	stitute for form 1449A/B/P	το			Complete if Kno	own		
				Application Number 10/665,908—Conf. #7052				
IN	<b>IFORMATION</b>	N DI	SCLOSURE	<b>=</b>	Filing Date	September 1	8, 2003	
S	TATEMENT I	BY A	APPLICANT	_	First Named Inventor Demetrius Sarigian		arigiannis	
					Art Unit	1763	-	
	(Use as many sh	eets as	necess ary)		Examiner Name	Rudy Zervig	on	
Sheet	11 of 13				Attorney Docket Number	1082987220	IS	
	WO-02/484	427-A	1 06-20-20	02	Tokyo Electron Li	mited		
	EP-1 167 5	569-A	01-02-20	02	IPS Limited	PS Limited		
	WO-00/40	772-A	1 07-13-20	00	Genus, Inc.			
	JP-11-172	438-A	06-29-19	99	Samsung Electro	n Co. Ltd.		1
	JP-8-3467	8-A	02-06-19	96	Matsushita Electr Ltd.	ic Works		1
	JP-6-1515	58-A	05-31-19	94	Tokyo Electron Lt	d.		1
	JP-6-3427	85-A	12-13-19	94	Fujitsu Ltd.			1
	JP-2001-2	61375	-A 09-26-20	01	Toshiba Ceramic	s Co. Ltd.		1
	JP-2001-2	54181	-A 09-18-20	02	Tokyo Electron Lt	d.		1

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	· ·	NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
		Integrated Process Systems Ltd., "ALD & CVD", 2 pages, retrieved from the Internet on December 11, 2001, <a href="http://www.ips-tech.com/eng/pro-p2-2.htm">http://www.ips-tech.com/eng/pro-p2-2.htm</a> .	
		Deublin Company, "Rotating Unions", 1 page, retrieved from the Internet on February 4, 2002, <a href="http://www.com/products/rotatingunions.htm">http://www.com/products/rotatingunions.htm</a> .	
		CAMERON, I., "Atomic Layer Deposition Chamber Works at Low Temperatures", 2 pages, Electronic Times, July 19, 2001, <a href="http://www.electronictimes.com/story/OEG20010719S0042">http://www.electronictimes.com/story/OEG20010719S0042</a> .	
		Cutting Edge Optronics, 600W QCW Laser Diode Array, Part Number: ARR48P600, 2 pages, October 2001, <www.ceolaser.com>.</www.ceolaser.com>	
		HENNING, A.K., et al., "Microfluidic MEMS for Semiconductor Processing," IEEE Trans. Components, Packaging, and Manufacturing Technology B21, pp. 329-337, 1998.	
		FITCH, J.S., et al., "Pressure-Based Mass-Flow Control Using Thermopneumatically-Actuacted Microvalves," Proceedings, Sensors and Actuators Workshop, pp. 162-165 (Transducers Research Foundation, Cleveland, OH, 1998).	
		HENNING, A.K., "Liquid and gas-liquid phase behavior in thermopneumatically actuated microvalves," Proceedings, Micro Fluidic Devices and Systems (SPIE, Bellingham, WA, 1998; A.B. Frazier and C.H. Ahn, eds.), Vol. 3515, pp. 53-63.	

Examiner	·	Date	•	
Signature		Considered		

Sub	Substitute for form 1449A/B/PTO		Complete if Known			
		_		Application Number	10/665,908-Conf. #7052	
11	<b>NFORMATION</b>	I DI	SCLOSURE	Filing Date	September 18, 2003	
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Sheet	12	of	13	Attorney Docket Number	108298722US	

Sheet		12	Of	13	Attorney Docket Number	10829872205				
		Systems f	or Se	miconductor Proces		Sas Distribution and Control eedings, SEMICON West A, 1998).				
				)., et al., "A High-Pe ns," pp. 413-417, IE		cropump for Disposable Drug				
		HENNING, A.K., et al., "A thermopneumatically actuated microvalve for liquid expansion and proportional control", Proceedings, TRANSDUCERS '97: 1997 International Solid State Sensors and Actuators Conference, pp. 825-828.								
						"Atomic Layer Deposition," 5 eley.edu/eng/br225/1-1.html>.				
		ENGELKE, F., et al., "Determination of Phenylthiohydantoin-Amino Acids by Two-Step Laser Sesorption/Multiphoton Ionization," Analytical Chemistry, Vol. 59, No. 6, pp. 909-912, March 15, 1987, The American Chemical Society.  COWIN, J.P., et al., "Measurement of Fast Desorption Kinetics of D2 From Tungsten By Laser Induced Thermal Desorption," Surface Science, Vol. 78, pp. 545-564, 1978, North-Holland Publishing Company.  READY, J.F., "Effects Due to Absorption of Laser Radiation," Journal of Applied Physics, Vol. 36, No. 2, pp. 462-468, February 1965, Journal of Applied Physics, American Institute of Physics.								
		Desorption	n/Las		ation," Bulletin of the	sorbates Using Laser Chemical Society of Japan,				
		the Interne	et on	October 16, 2004,	ocess System, Trias pe/sdtriasspa.htm>.	SPA, 1 page, retrieved from				
		OLSSON,	A., "	Valve-less Diffuser l	Micropumps", ISSN 0	281-2878, 66 pages, 1998.				
		Moving-Pa	arts V			icro-Pumps Based on No- pelectromechanical Systems				
		Systems f	or Se nts (S	miconductor Proces SPIE, Bellingham, W	sing," Proceedings, I	Gas Distribution and Control Micromachined Devices and and K. Chau, eds.), Vol.				
		Precision Contamina	Mass ation	Flow Controllers," I	Proceedings, SEMIC	MEMS-BASED, High- ON West Symposium on Processing (SEMI, Mountain				
		HENNING Paper 4.9	6, A.K 06 (IE	, "Microfluidic MEM EEE Press, Piscatav	IS," Proceedings, IEE vay, NJ, 1998), 16 pa	EE Aerospace Conference, ges.				

Examiner	Date	
Signature	Considered	

Complete If Known

PTO/SB/08a/b (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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1 00000	nate for form 1440/4B/1	•		40/005 000 0 4 47050			
				Application Number	10/665,908–Conf. #7052		
INI	FORMATION	I DIS	SCLOSURE	Filing Date	September 18, 2003		
ST	<b>ATEMENT</b>	BY A	APPLICANT	First Named Inventor	Demetrius Sarigiannis		
				Art Unit	1763		
	(Use as many she	ets as	necess ary)	Examiner Name	Rudy Zervigon		
Sheet	13	of	13	Attorney Docket Number	108298722US		
	Batch?" S	emico	hermal Processing's onductor Internationa onductor/index.asp?	l, April 1, 1998, 8 pa			
	The University of Adelaide, Australia, Department of Chemistry, "Spectroscopy", 2 pages, retrieved from the Internet on February 9, 2002, <a href="http://www.chemistry.adelaide.edu.au/external/Soc-Rel/Content/spectros.htm">http://www.chemistry.adelaide.edu.au/external/Soc-Rel/Content/spectros.htm</a> .						
r.			ny, "Sealing," 2 page ww.deublin.com/prod	es, retrieved from the Internet on February 4, ducts/sealing.htm>.			
	Vacuum,	Coola		e," 1 page, retrieve	Water, Steam, Air, Hydraulic, d from the Internet on		
			ess Systems Ltd., "N 1, 2001, <http: td="" www<=""><td></td><td>, retrieved from the Internet oro-p2.htm&gt;.</td><td></td></http:>		, retrieved from the Internet oro-p2.htm>.		
			ess Systems Ltd., "Wember 11, 2001, <htt< td=""><td></td><td>", 1 page, retrieved from the om/eng/main.htm&gt;.</td><td></td></htt<>		", 1 page, retrieved from the om/eng/main.htm>.		
	Interconne	ection	et al., "Process Integ ," pp. 601-609, 2004 EE, June 2004.		Stack with Vertical ents and Technology		

Substitute for form 1449A/B/PTO

Examiner	Date	
Signature	Considered	
		_

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